

**Autumnwood ESH Consultants, LLC**

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5 February, 2015

Mr. John Nordine  
U.S. EPA Region 5  
RCRA Enforcement and Compliance Assurance Branch (LU-9J)  
77 West Jackson Boulevard  
Chicago, Illinois 60604

Re: Central Wire, Union, Illinois Monthly Progress Report for January 2015

Dear Mr. Nordine:

Enclosed please find the Monthly Progress Report for the Central Wire facility located in Union, Illinois for the month of January 2015.

The eDMR for the groundwater pump and treat facility and the laboratory analytical reports, which includes the effluent data used in the eDMR for January 2015 are also attached to this report.

If you have any comments or questions regarding the progress of this project, please contact me at (262) 237-1130.

Sincerely,

**Autumnwood ESH Consultants, LLC**

John W. Thorsen, P.E.

JWT:jt

encl

cc:	Joyce Munie	IEPA
	Robert Kay	USGS
	Thomas Hanewald	Central Wire
	Gerald W. Ruopp	Central Wire
	Robert Johnson	Central Wire

**MONTHLY PROGRESS REPORT**  
**Central Wire Union, Illinois Site**  
**January 2015**

1. **Progress Made This Reporting Period** – This reporting period Central Wire continued the operation and maintenance of the groundwater extraction and treatment system. Central Wire treated an average of 481,000 gallons per day with a maximum daily flow of 482,000 gallons per day and met effluent limitations for pH, 1,1,1-Trichloroethane (TCA), Trichloroethene (TCE) and Tetrachloroethene (PCE). The electronic Discharge Monitoring Report (eDMR) for January 2015 is attached to this report.

Maintenance on the tray aeration system was not complete at the end of January so the flows will remain at about the same volume in February as in January until the maintenance is complete which is expected in February. Central Wire is awaiting warmer weather for system shut down so the packed tower does not freeze up during this maintenance activity.

The laboratory analytical report for the pump and treat effluent noted that the groundwater pump & treat effluent samples arrived at the lab on January 22, 2015 at 1.3° C. There were also additional samples collected in the Ex. 6 Personal Privacy (PP) to better define the leading edge of the plume. Samples were collected at GP-23 and GP-24 (see attached drawing) at 27 feet, 57 feet and 85 feet below the ground surface. These samples and two field blanks arrived at the lab on January 21, 2015 at 2.8° C.

The groundwater level monitoring data from downgradient monitoring well DGW-2I continues to be collected. Central Wire has left a water level recorder in monitoring well DGW-2I and reset the recorder to collect the groundwater level measurements every hour. We will retrieve this data logger in the spring when Ex. 6 Personal Privacy (PP) deploys the diesel engines that power the irrigation well pumps.

2. **Summary of Validated Data and Results** – The monthly effluent sampling took place on December 18, 2014. The permit limitations and analytical results are shown below.

**Central Wire Union Illinois Pump & Treat Discharge Analytical Results**

Parameter	Effluent Limitation (Daily Maximum), µg/L	January 2015 Analytical Results, µg/L
1,1,1-Trichloroethane	20	1.5
Trichloroethene	20	1.4
Tetrachloroethene	20	<0.17

The January NPDES analytical report is attached to this Monthly Progress Report.

Central Wire also received the data from the January Geoprobe sampling event which is summarized in the table below. The field stabilization data is attached as Table 1.

## Central Wire Union Illinois Geoprobe Analytical Results, January 2015

(All values are in  $\mu\text{g/L}$ )

	1,1-DCE	1,1-DCA	1,1,1-TCA	cis-1,2-DCE	trans-1,2-DCE	Acetone
MCLs	7	-	200	70	100	-
GP-23S	8.6	6.1	-	5.7	0.51 J	-
GP-23I	-	-	-	-	-	-
GP-23D	0.61 J	0.88 J	-	-	-	-
FB-1	-	-	-	-	-	8.2
GP-24S	-	-	3.7	-	-	-
GP-24I	-	0.6 J	-	1.1	-	-
GP-24D	-	-	-	-	-	-
FB-2	-	-	-	-	-	-

- = Not Detected

MCL = EPA's Maximum Contaminant Limit (or groundwater standard)

1,1-DCE = 1,1-Dichloroethene

1,1-DCA = 1,1-Dichloroethane

1,1,1-TCA = 1,1,1-Trichloroethane

cis-1,2-DCE = cis-1,2-Dichloroethene

trans-1,2-DCE = trans-1,2-Dichloroethene

J = Estimated value. Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). The user of this data should be aware that this data is of limited reliability.

One sample exceeded one MCL in this sampling event. The sample collected at GP-23S exceeded the MCL for 1,1-Dichloroethene at 8.6  $\mu\text{g/L}$  vs the MCL of 7  $\mu\text{g/L}$ . 1,1-DCE is a degradation product of both Tetrachloroethene (PCE) and Trichloroethene (TCE) and indicates that, at this leading edge of the chlorinated plume, the original solvent, TCE, is in the process of degrading to ethene, a relatively harmless gas used to ripen fruit and as a general inhalation anesthetic.

The laboratory report for this sampling event is attached to this Monthly Progress Report.

**3. Upcoming Events/Activities Planned** – Central Wire will continue to operate the existing remediation systems. Effluent samples will be collected and analyzed as required in our NPDES permit.

Planned maintenance on the tray aeration system should be completed in February, assuming we have some warmer days so the packed tower aerator will not freeze when the system is shut down to complete the maintenance on the tray aeration system.

4. **Anticipated Problem Areas and Recommended Solutions** – None.
5. **Key Personnel Changes** – None.
6. **Target and Actual Completion Dates** – This project has not deviated from the project schedule.